

VITEK, B.; SUMBERA, J.; MRAZ, J.

Fatal ventricular paroxysmal tachycardia in a 5-year-old girl  
with Ebstein's anomaly. Cesk. pediat. 20 no.11:980-983 N '65.

1. II. detska klinika (prednosta prof. dr. M. Toman, CSc.) a  
Ustav soudniho lekarstvi (prednosta MUDr. S. Janousek, CSc.)  
lekarske fakulty University J.E. Purkyne v Brne.

MR AZ, JOSE

19  
Angular correlation in nuclear radiation. (cont'd.)  
M. J. Kravitz, University of Illinois, Urbana, Illinois  
Proc. Kibernetika, 1, 129-132 (1960).—Theories of the measurements of the angular correlation of  $\gamma$ -quanta and applications of these results were reviewed. A preliminary test app. was constructed to conduct such measurements. It had 2 crystals, one of  $10^{-3}$  sec. resolution time (featuring DS-60 crystal diodes) and the other of  $10^{-4}$  sec. ("Schmitt circuit"). A NaI scintillating crystal was used as detector and a 931A-type electronic multiplier was used for amplification. This arrangement provided an adequate degree of discrimination of random noise. Preliminary data, were conducted on  $^{60}\text{Co}$  source. Angular correlation ratio,  $W(180^\circ)/W(90^\circ)$  results of  $1.177 \pm 0.018$  were obtained, compared to the theoretical value of 1.167. Based on these findings a permanent app. will be constructed.  
G. J. Kravitz

3  
 $4\text{e}^2 (2)$   
 $4\text{e}^2 /$

MRAZ, JOSEF

HUNGARY/Nuclear Physics - Structure and Properties of Nuclei C-4

Abs Jour : Ref Zhur - Fizika, No 7, 1958, No 14069

Author : Mraž-Jeser

Inst : Not Given

Title : Angular Correlation of Nuclear Radiation

Orig Pub : Magyar fiz. folyoirat, 1957, 5, No 3, 217-228

Abstract : Brief discussion of the semi-classical theory of angular correlation of gamma quanta. The author describes a setup for the measurement of angular correlation constructed at the Central Physics Research Institute (Hungary). Bibliography, 15 titles.

Card : 1/1

Card : 1/1

ACC NR: AN7006443

SOURCE CODE: CZ/9001/67/000/006/0001/0001

AUTHOR: none

MRAZ, Josef

ORG: none

TITLE: Weapons and people in the front line. Conversation with Col. Josef Mraz on the air defense of Czechoslovakia

SOURCE: Obrana lidu, no. 6, 11 Jan 67, p. 1, col. 2-4, p. 8, col. 1-4

TOPIC TAGS: air defense, antiaircraft defense, air defense system, air defense tactic, radio communication,

ABSTRACT: Col. Josef Mraz, political worker with the air-defense troops, said in an interview that the nature of air defense has changed fundamentally in recent years. Fighter regiments and airfield units are now equipped with modern equipment. Classical antiaircraft artillery has been replaced with antiaircraft rockets. Radio communications have made great progress. Exercises at night and under bad weather conditions have proved very successful. The technical staff and airmen have been able to adjust to modern combat techniques. Rocket troops have improved their ability to

Card 1/2

UDC: none

ACC NR: AN7006443

destroy fast targets at medium and high altitudes. Radio-communications troops are accomplishing better target search and detection at all altitudes. Semiautomatic systems have created the conditions necessary for active air defense. The fact that air-defense troops must be in constant readiness creates special hardships on the people involved. Since these units are not located in big cities, there is a lack of cultural relaxation and proper accommodations. Extended leave cannot be granted and the soldiers' free time cannot usefully be spent in the remote areas. In addition, wives cannot find work, children do not receive proper schooling, and health services are inadequate. There is a need to improve these conditions. Czechoslovakia's air defense is a much-appreciated part of the air-defense system of the Warsaw Pact countries. [KS]

SUB CODE: 15, 05/ SUBM DATE: none/ ATD PRESS: 5116

Card 2/2

MRAZ, K.

B. Boucek and O. Kodym's Geologie. I dil (Geology. pt. 1);  
a book review. p. 535.

BIOLOGIA. (Slivekska akademie vied) Bratislava CZECHOSLOVAKIA

Vol. 10, No. 4, 1955

SOURCE: East European Accessions List (EFAL) Library  
of Congress. Vol. 5, No. 1, January, 1956.

MPAZ, K.

Production capacity of phytocoenologically distinct types of habitat. p.123.  
Ceskoslovenska akademie zemedelskych ved. SBOHRNIK. RAD A LESNICTVI.  
Praha. Vol. 28, no. 1, Feb, 1955

SOURCE: East European Accessions List, (EEAL), Library of Congress,  
Vol. 4, No. 12, December 1955

MRAZ, K.

Mardus pastures of Martiske Hole Range as a stage in the development  
of forest biocoenoses. p. 2. BIOLOGIA. VOL. 11, no. 1, 1956.

SOURCE: East European Accessions List, (EEAL) Library of Congress  
Vol. 5, No. 8, August 1956.

MRAZ, K.

Paclova, B. Pollen analysis of peat and soils as an instrument for solving  
important cultivation problems. p.3.  
SBORNÍK RADA LESNICTVÍ, Prague, Vol. 29, no.1, Jan. 1956.

S): Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6 June 1956, Uncl.

MRAZ, K.

MRAZ, K. Phytocenobitic synthetic survey by means of statistical machines. p. 813.

Vol. 29, No. 11, Nov. 1956.

SBORNIK RADA LESNICTVI

AGRICULTURE

Praha, Czechoslovakia

So: East European Accession, Vol. 6, No. 2, Feb. 1957

MRAZ, K.

"Subcontintntal forests in the Middle Elbe River valley."

p. 39 (SBOŘNIK RADY LESNICTVÉ Vol. 31, no. 1, Jan. 1958, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, no. 7, 1958

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R001135510014-0

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R001135510014-0"

MRAZ, K.

AGRICULTURE

P RIODICAL: VESTNIK, VOL. 6, no. 1, 1959

Mraz, K. A new aspect of single-crop farming. p. 60

Vol. 6, no. 2, 1959

Monthly List of East European Accessions, (EEAI), LC, Vol. 8, no 5,  
May 1959, Unclass.

MRAZ, Karel

Use of punched-card machines in geobotany and forest typology.  
Biologia 15 no.6:401-410 '60. (EAI 9:10)

1. Vyzkumny ustav Lesniho hospodarstvi a myslivosti Ceskoslovenske  
akademie zemedelskych ved, Zbraslav-Strnady.  
(PUNCHED CARD SYSTEMS) (PHYTOGEOGRAPHY)  
(FORESTS AND FORESTRY)

MRAZ, Karel, inz., CSc.

Development of tree selection in the forests of the  
Havlickuv Brod area. Les cas 9 no.3:231-242 Mr '63.

1. Vyzkumny ustav lesniho hospodarstvi a myslivosti, Zbraslav-  
Strnady.

PHASLICKA, M.; KARPEL, Z.; MRAZ, L.

Effect of controlled hypothermia on survival and peripheral blood picture in mice and rats following irradiation. *Cesk. fysiol.* 7 no.3:284-285 May 58..

1. Ustav biologie lek. fak. v Kosicach a Ustav biofyziky CSAV, Brno.  
(BLOOD CELLS,  
count, eff. of hypothermia in irradiated animals (Cs))  
(RADIATIONS, eff.  
eff. of hypothermia on survival & blood count (Cs))  
(HYPOTHERMIA, eff.  
on blood count & survival in irradiated animals (Cs))

MRAZ, Ladislav

CZECHOSLOVAKIA//analytical Chemistry. General Topics.

E

Abstr Jour: Ref Zhur-Khim., No 9, 1959, 30926.

Author : Mraz, Ladislav, Simon, Vladimir, Zyka, Jaroslav.

Inst :

Title : Titration with Hydroquinone and Similar Reducing Agents. IX. On the Stability of Hydroquinone Solutions.

Orig Pub: Chem. listy, 1958, 52, No 6, 1083-1088.

Abstract: The effect of various factors on the stability of hydroquinone solutions (I) was studied by means of systematic control of the titer of 0.1-0.001 normal solutions of I by visual, photometric or potentiometric titration with  $K_2Cr_2O_7$  solution or with  $Ce(SO_4)_2$  solution (in the case of highly di-

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CZECHOSLOVAKIA/Analytical Chemistry. General Topics.

E

Abs Jour: Ref Zhur-Khin., No 9, 1959, 30926.

ration, but at the end of this time the titer becomes completely stabilized. The degree of titer deviation depends on the purity of the utilized I and in the ordinary I preparations fluctuates within 0.5-1.5%. For report VIII, see: Ref Zhur-Khimiya, 1959, 19105. -- Karel Knmen.

Card : 4/4

68

MRAZ, LADISLAV

CZECHOSLOVAKIA / Analytical Chemistry. Analysis of Inorganic Substances.

E

Abs Jour: Ref Zhur-Khim., No 9, 1959, 30966.

Author : Mraž, Ladislav, Simon Vladimír, Zylka, Jaroslav.

Inst :

Title : Titration with Hydroquinone and Similar Reducing Agents.  
X. Titration of Cerium, Chromium and Vanadium and the Feasibility of Their Determination When Present Simultaneously.

Orig Pub: Chem. listy, 1958, 52, No 6, 1089-1092.

Abstract: A method of accurately determining small quantities of Ce, V and of Cr has been developed. This method is based on the potentiometric titration of  $\text{Ce}^{4+}$ ,  $\text{Cr}_2\text{O}_7^{2-}$  and  $\text{VO}_3^-$  with hydroquinone solution (I)

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CZECHOSLOVAKIA/Analytical Chemistry. Analysis of Inorganic Substances.

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Obs Jour: Ref Zhur-Khim., No 9, 1959, 30966.

(in the process of titration the enumerated ions are reduced to Ce<sup>3+</sup>, Cr<sup>3+</sup> and VO<sup>4-</sup> respectively). Ce<sup>4+</sup> and Cr<sub>2</sub>O<sub>7</sub><sup>2-</sup> are very accurately determined close to concentrations  $5 \cdot 10^{-4}$  M and  $2 \cdot 10^{-4}$  M respectively by titration in the 2-15% H<sub>2</sub>SO<sub>4</sub> medium. With greater dilution negative errors are observed. 0.1-0.05 normal solutions of VO<sub>3</sub><sup>-</sup> can be titrated in the 15-30% H<sub>2</sub>SO<sub>4</sub> medium and 0.05-0.005 normal solutions can be titrated in the 25-30% H<sub>2</sub>SO<sub>4</sub> medium. For the solutions of 0.005 normal VO<sub>3</sub><sup>-</sup> the results obtained are too high. Instead of H<sub>2</sub>SO<sub>4</sub> HNO<sub>3</sub> (0.2-15 normal) can also be used. The determination of Ce is hindered by the presence of HCl and of large

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CZECHOSLOVAKIA/Analytical Chemistry. Analysis of Inorganic  
Substances.

E

Abs Jour: Ref Zhur-Khim., No 9, 1959, 30966.

quantities of  $H_3PO_4$ , and the determination of V  
is hindered by the presence of HCl. The titration  
of all 3 of the above-mentioned ions can be carried  
out in the presence of  $MnO_4^-$  since the jump in po-  
tential corresponding to  $MnO_4^-$  is clearly distinct  
from the jump in the potentials of the ions being  
determined. In comparison with the method of ti-  
tration with  $Fe^{2+}$  solution the hydroquinone me-  
thod is much more sensitive. From the combinations  
of Ce, Cr and V it is possible to reliably deter-  
mine  $VO_3^-$  together with  $Ce^{4+}$  and somewhat less  
clearly  $Cr_2O_7^{2-}$  with  $Ce^{4+}$ . Simultaneous deter-  
mination of  $Cr_2O_7^{2-}$  and  $VO_3^-$  is difficult or

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CZECHOSLOVAKI./Analytical Chemistry. Analysis of Inorganic  
Substances.

Obs Jour: Ref Zhur-Khim., No 9, 1959, 30966.

impracticable. The simultaneous determination of all 3 ions does not give quite satisfactory results in most cases. The accuracy of the joint titration of Ce<sup>4+</sup> and Cr<sub>2</sub>O<sub>7</sub><sup>2-</sup> can be increased by the addition of excess Mn(2+) salt (as the result of interaction of Ce<sup>4+</sup> with Mn<sup>2+</sup>, MnO<sub>2</sub> forms in a quantity equivalent to the present Ce). Then MnO<sub>2</sub> is quantitatively reduced by means of I to Mn<sup>2+</sup>. In this procedure the corresponding oxidation-reduction potential in this case is more favorable than in the direct reduction of Ce<sup>4+</sup>. For Report IX see: Ref Zhur-Khimiya, 1959, 30;26. --  
Karel Kamec.

E

77

: 4/4

~~L. Mraz~~ MRAZ L  
Distr: 4S2c 7

Titration with hydroximino and analogous reducing agents. XI. Determination of cerium in different materials. Ladislav Mraž, Vladimír Šimán, and Jaroslav Černý (Institute of Inorganic Chemistry, Prague). Česká řada 62, 1991-1992 (Anorganika), p. 25; preceding abstr. Ce was determined in monazite sands (also in the presence of Mn), cerite metal (contg. 30-45% La, Pr, and Nd; 2% V and Fe; and small amounts of Ni, Si, Mg, and Ca); Al-Th-Ce-alloy (contg. 6% Ce), steel (contg. 0.01-0.02% Ce), electrolytic waste materials (contg. 15-20% Ca, Pr, Sm, and Nd), and in Alter metal by titration with hydroximino salts with potentiometric or visual (ferrom) indication.

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COUNTRY : Czechoslovakia  
CATEGORY :  
JOUR. : RZhKhim., o. 24 1910. No. 1257  
AUTHOR : Krajcova, E., Simon, V., and Zyka, J.; Mraz, L.  
TITLE : Titration with Hydroquinone and Similar Reducing Agents. VIII. The Potentiometric Determination of Salts of Trivalent Thorium. IX. On the <sup>\*\*</sup> Collection Czechoslov Chem Commun, 24, no 4, 445-451; No 4, 1054-1060 (1959)  
CRIG. PUB. : See RZhKhim, 1959, No 6, 19103. For Communication VII see RZhKhim, 1959, No 15, 33103.  
ABSTRACT : See RZhKhim, 1959, No 6, 19103. For Communication VII see RZhKhim, 1959, No 15, 33103.

CARD: 1/1 \*Simon, V., and Zyka, J.  
\*\*Stability of Hydroquinone Solutions.

KRAL, L.; SLOU, V.; LIMA, J.

"Titration with quinol and analogous reagents. IV. Titration of cerium, cerium, and vanadium, and the possibility of their simultaneous determination." In German. "J. Tech. Collection of CZECHOSLOVAK CHEMICAL TECHNOLOGY, Prague, Czechos., Vol. 24, No. 5, May 1959

Monthly List of East European Accessions (EAL), IE, Vol. 7, No. 7, Sept. 1959

Unclassified

MRAZ, M.

Action of hyaluronidase on the interceptrors. M. Mraz,  
H. Ralkova, and B. Rybova. (Charles Univ., Prague).  
*Czechoslov. Hyg., Epidemiol., Mikrobiol., Immunol.* 8, 249-62  
(1954).—Expts. with isolated interceptive areas showed  
that hyaluronidase (I) administered in a single dose of 1-3  
mg. and in a long-term perfusion of the given area as well  
does not alter the usual reaction to acetylcholine and to some  
bacterial poisons (lyophilized streptolysin, typhus endotoxin  
and toxin of *Shigella shiga*) as long as the concn. of I does  
not exceed 0.7 mg./1000 ml. of the perfusing Tyrode soln.  
At higher concns. a long-term disappearance of reactivity  
was observed which was restored by adenosinetriphos-  
phoric acid. Similar results were obtained on perfusion  
with heparinized blood but 10-20 times higher concns. of I  
were required for the reactions to disappear. L. J. G.

HAVA, Milos; MRAZ, Miroslav; KRAUS, Richard; ROTTA, Jiri;  
JELINEK, Jiri

Mechanism of action of streptolysin O and its pharmacological  
effects. Cesk. epidem. mikrob. imun. 5 no.1:26-33 Mar 56.

1. Katedra farmakologie fakulty detskeho lekarstvi a  
farmakologicky ustav KU, Embryologickej ustav KU, Ustav  
epidemiologie a mikrobiologie, Praha.

(STREPTOLYSIN, effects,  
on hemoglobin level (Cz))  
(HEMOGLOBIN, effect of drugs on,  
streptolysin on level (Cz))

KALOUSKOVA, J.; MRAZ, M.; SONKA, J.; TRINER, L.

Erythrocyte glucose metabolism following chlorpromazine therapy. Cesk. fysiol. 7 no.3:260-261 May 58.

1. Farmakologicky ustav KU, Praha, III. int. Klinika FVL, Praha.  
(CHLORPROMAZINE, eff.  
on erythrocyte glucose content (Gz))  
(BLOOD SUGAR, eff. of drugs on,  
chlorpromazine (Gz))

MRAZ, M.; TINTER, L.; HAVA, O.

Comparison of the effect of several substances on experimental shock.  
Acta chir. orthop. czech. 25 no.2:142-149 Apr 58.

l. Farmakologicky ustav fak. všeobecného lekarství KU v Praze. Katedra  
válečné chirurgie VII, Hradec Králové.

(SHOCK, exper.

eff. of chlorpromazine, dihydroergotoxin, pentamethonium &  
promethazine in rats (Cz))

(ERGOT ALKALOIDS, eff.

dihydroergotoxin on exper. shock in rats (Cz))

(METHONIUM COMPOUNDS, eff.

pentamethonium on exper. shock in rats (Cz))

(CHLORPROMAZINE, eff.

on exper. shock in rats (Cz))

(PROMETHAZINE, eff.

same)

MRAZ, M.; TRINER, L.

Pharmacological influence on experimental shock. *Cesk. fysiol.* 8 no.3:226-227 Apr 59.

1. Farmakologicky ustav fak. vseob. lek. KU, Praha. Predneseno na III. fysiologickych dnech v Brne dne 14. 1. 1959.

(SHOCK, experimental.  
eff. of various drugs (Cz))

LEDVINA, Milos; KACL, Karel; Mraz, Miroslav; DOLEZAL, Vladimir

Metabolism of 5-methyl-barbituric acid. Cas. lek. cesk. 98 no.27:  
840-842 3 July 59.

1. Laborator pro toxikologii a soudni chemii KU, prednosta prof. dr.  
Karel Kacl. Farmakologicky ustav KU, povereny vedouci doc. dr. Maximilian  
Wenke. M.L., Praha 2, Katerinska 32.

(BARBITURATES, metab.

5-methyl-5-phenyl-barbituric acid (Cz))

MBAZ, M.; TRINER, L.

Pharmacological effect on shock. Česk. fysiol. 9 no.1:88 Ja 60.

l. Farmakologicky ustav fak. vseob. lek. KY, v Praze.  
(SHOCK, exper.)

TRINER, L.; MRAZ, M.

Relation of the effect of chlorpromazine and pentamethonium to the time  
of administration in burn shock. Physiol. Bohemoslov. 11 no.1:24-29  
'62.

1. Department of Pharmacology, Faculty of General Medicine, Charles  
University, Prague.

(CHLORPROMAZINE pharmacol)  
(METHONIUM COMPOUNDS pharmacol)  
(BURNS exper) (SHOCK exper)

AKA: L., inz.

Blasting a trench for piping under the Hron River. Inz stavo  
12 no.10; Mechanizace no.10; 168 '64.

TRINER, L.; MRAZ, M.

Some biochemical changes in the blood after dextrane administration.  
Physiol. bohemoslov. 12 no.2:128-135 '63.

1. Institute of Pharmacology, Faculty of General Medicine, Charles  
University, Prague.

(DEXTRAN) (PROTEINS) (BLOOD CHEMICAL ANALYSIS)  
(FATTY ACIDS) (CALCIUM) (BLOOD PROTEINS) (BLOOD, LIPIDS)

TRINER, L.; MRAZ, M.; CHMELAROVA, M.

The effect of glucose and glucose together with insulin on the resistance of fasted rats to trauma in the Noble-Collip drum. Physiol. bohemoslov. 12 no 12:136-144 '63.

1. Institute of Pharmacology, Faculty of General Medicine, Charles University, Prague.

(GLUCOSE) (INSULIN) (FASTING) (SHOCK TRAUMATIC)  
(LIVER GLYCOGEN) (MUSCLE GLYCOGEN) (MUSCLES)

MRAZ, M.

Carbohydrate metabolism following traumatization in the Noble-Collip  
drum and shock due to burns in rats. Physiol. bohemoslov. 12 no.2:  
145-149 '63.

1. Institute of Pharmacology, Faculty of General Medicine, Charles  
University, Prague.

(CARBOHYDRATE METABOLISM) (SHOCK TRAUMATIC) (BURNS)  
(LACTATES) (ADRENALECTOMY) (GLYCOGEN) (MUSCLES)  
(FASTING)

MRAZ, M.; TRINER, L.; CHMELAROVA, M.; KRAUS, R.

On the possibility of parenteral administration of maltose.  
Bratisl. lek. listy 43 no. 3:156-162 '63.

Z farmakologickeho a embryologickeho ustavu fak. vseob. lek.  
KU v Praze, vedouci doc. MUDr. M. Wenke a akademik J. Wolf, Dr.Sc.  
(MALTOSE) (INFUSIONS PARENTERAL)

MRAZ, M., inz.

Contribution to the problem of the placement and size of a charge in screen blasting. Stavivo 42 no.1:20-23 '64.

1. VUIS Bratislava, pracovisko Brno.

MRC, Martin, inc.

Anchorage of the supertanker "Tahiti" at the port of Valparaiso.  
Inc steamer 12 m.12t. long 170 meters wide. 1976.

CZECHOSLOVAKIA / UNITED STATES

HRAZ, M.; HILLMAN, S.C.; ASIENORE, J.; Pharmacological Institute,  
Faculty of General Medicine (Farmakologicky Ustav Fak. Vseob. Lek.),  
Prague; Dept. of Pharmacology, Indiana University, School of Med.,  
Indianapolis,

"The Influence of Drugs on Krebs' Tricarboxylic Cycle."

Prague, Ceskoslovenska Fysiologie, Vol 15, No 5, Sep 66, p 419

Abstract: Glutamate -2-C<sup>14</sup> metabolized in Krebs' cycle can yield lactate tagged in two ways. Lactate containing C<sup>14</sup> in the carboxylic group can be formed only via succinate, oxalacetate, and pyruvate, that is by the normal Krebs' cycle; glutamate metabolized via citrate, oxalacetate, and pyruvate produces a lactate tagged on C 2 and 3. Experiments with rats to which catecholamines were administered showed that only 1/3 of the lactate was produced through the Krebs' cycle, while 2/3 were produced via the other path. The influence of various doses of catecholamines on the proportions of glutamate metabolized through the two different paths is discussed. The influence of insulin is described. No references. Submitted at 1<sup>1/2</sup> Days of Pharmacology at Smolenice, 17 Feb 66.

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MRAZ, M.

Rotary method of drilling, its practical results and prospects for wide introduction. p. 99.  
SUVY, Praha, Vol. 3, no. 4, Apr. 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955,  
Uncl.

MRAZ, Marian, ins.

Method of heterogeneous rock drilling. Ins stavby 11 no. 3: 117-118  
Mr '63.

MRAZ, O.

Reidentification of strains of *Pasteurella mastidif* (sic)  
ATCC no.10898 and 10899. *Cesk. epidem.* 12 no.4:225-231 Jl '63.

1. Ustav pro mikrobiologii a imunologii veterinarni fakulty  
VSZ v Brne.  
(PASTEURELLA)

Microbiology

CZECHOSLOVAKIA

KALOZ, O.; ROZTOCIL, V.; ZEMSKA, M.; Chair of Microbiology, Immunology, and Zoohygiene, Veterinary Faculty, College of Agriculture (VSZ, Veterinarni Fakulta, Katedra Mikrobiologie, Imunologie, a Zoothgieny), Brno.

"New Microbial Findings Concerning Actinomycosis in Cattle and an Attempt at the Reproduction of Pathological Changes."

Prague, Veterinarni Medicina, Vol 11, No 10, Oct 66, pp 621-633

Abstract [Authors' English summary modified] From 125 head of cattle suffering from actinomycosis were examined clinically, histologically, and bacteriologically. In 5 animals *Pasteurella hemolytica*, in 1 *Achromobacter anitratus*, and in 1 *Paracolobactrum intermedium* were found. Experiments aimed at the reproduction of the pathological changes caused by the 3 bacteria cited were not successful. It is assumed that all 7 cases of infection were due to mixed infections. 4 figures, 2 Tables, 13 Western, 6 Czech, 1 East German reference. (Manuscript received 28 Feb 66).

1/1

MRAZ, Rudolf; PESKOVA, Eva

Effect of the presence of amines on amalgam electrolysis. Chem prum  
12 no.4:175-177 Ap '62.

1. Katedra anorganické technologie, Vysoká škola chemicko-technologická,  
Praha.

MRAZ, S.

Pain in chronic diseases of the nose and paranasal sinuses.  
Cesk. otołaryng. 12 no. 5:268-270 0 '63.

1. Vojenska nemocnica v Kosiciach,  
(RHINITIS, ATROPHIC) (OTORHINOLARYNGOLOGY)  
(SINUSITIS) (SYPHILIS) (TUBERCULOSIS)  
(NOSE) (NOSE NEOPLASMS) (HEADACHE)  
(PARANASAL SINUS NEOPLASMS)  
(PARANASAL SINUSES) (PAIN)

MRAZ, S.  
(2566)

Polyneuritis cerebralis menieriformis Frankl-Hockwart Frakl & Hochwart's cerebral polyneuritis resembling Méniere's syndrome BRATISLAVSKÉ LEKÁRS. LIST. 1951, 31/9-10 (1052-1057) Report of a case in which cranial nerves V, VI, VII, VIII and II were affected. From the nature of the involvement of these nerves and of the CSF findings it is concluded that central forms of virus polyneuritis come under the heading of radiculoneuro-encephalomyelitis.

MRAZ, S.

Contribution to cylindroma in the upper respiratory tract.  
Cesk. otolaryng. 12 no.4:245-248 Ag '63.

1. ORL oddelenie Vojenskej nemocnice v Kosiciach.  
(CYLINDROMA) (RESPIRATORY TRACT NEOPLASMS)  
(PARANASAL SINUS NEOPLASMS) (ETHMOID SINUS)  
(MAXILLARY SINUS) (SURGERY, OPERATIVE)

MRAZ, Stanislav, inz.

Programming equipment. Stroj vyr 12 nc.11:829-231 '64.

1. Smeralovy zavody National Enterprise, Research Institute, Brno.

MRAZ, S.; SEMJAN, J.

Lymphography with the use of contrast media. Cesk. otolaryng.  
14 no. 5283-285 0 ' 65.

1. Otolaryngologicke a röntgenologicke oddelenie vojenskej nemocnice v Kosiciach.

HOGHADY, G.; UJVARY, G.; MRAZ, T.

The effect of aureomycin on various bacteria and on the bacterial flora  
of normal and trachomatous conjunctiva. Szemészeti 88 no.1:16-22 1951.  
(CLML 23:2)

1. Doctors. 2. Institute of Public Hygiene (Director -- Prof. Dr. Karoly  
Rauss), Pecs University.

MRAZ, Tibor, dr.

Effect of a prolonged incubation time on hemoculture results  
with special reference to *Salmonella*. Orv.hetil. 102 no.10:442-  
445 5 Mr '61.

1. Baranya megyei Kozegeszsegugyi Jarvanyugyi Allomas.  
(*SALMONELLA* culture)  
(BLOOD microbiol)

MRAZ, V., inz,

Exploitation of Congo River for power production. Nova  
technika 2 no.4:105-106 Ap '57.

CA MRAZ, V

10

Separation of dihydroxybenzenes by paper chromatography. V. Mráz. *Česk. Látky* 44, 259-02(1950).—  
Dihydroxybenzenes, especially homologs of pyrocatechol, were sepd. on filter paper by the use of  $H_2O$ -satd. solns. in 95%  $CCl_4$  with 5% BuOH or 94%  $C_6HCl_4$  with 2% BuOH (by vol.).  $R_f$  values are listed. M. Hudlický

MRAZ, V.

Problems of automatic control in the pulp and paper industry. p. 246.

PAPIR A CELULOSA. (Ministerstvo lesu a drevarskeho prumyslu) Praha,  
Czechoslovakia, Vol. 14, no. 11, Nov. 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 9, no. 1,  
Jan. 1960.

Uncl.

MRAZ, V.

- M. Z., V. Increasing the use of beryllium in metallurgy. Tr. from the German. p. 299.  
Automatization of television-set manufacture. Tr. from the English. p. 300.  
-N- Specific gravity measurements by means of radioactive radiation and their  
application to indust. p. 300.

Vol. 1, no 10, Oct. 1956

NOVA TECHNIKA

TECHNICKY

Czechoslovakia

So. East European Accessions, Vol. 6, No. 1, May 1957

MRAZ, V., inz.

Supposed development of raw iron and aluminum production.  
Nova technika 2 no. 6:173 Je '57.

PUNCOCHAR, Z., inz.; ZDENEK, Z., inz.; KOLDINSKY, J., inz.; CHVATAL, Vlad.,  
inz.; DEDEK, Vlad., inz.; JENICEK, L.; MRAZ, V.

Informations on metallurgy. Hut listy 16 no. 5:373-380 My '61.

BECVAR, J.; MRAZ, V., inz.; PANT, P., inz.; HONZIK, M., inz.;  
TEINDL, J.

Informations on metallurgy. Hut listy 17 no.4:298-304  
Ap '62.

STEHEL, F., inz.; KUBINA, R., inz.; CHVOJKA, Jan, inz.; KECLIK, V., inz.;  
ELFMARK, J., Inz.; SORAL, J., inz.; MRAZ, V., inz.; VESELY, J.,  
inz.

Information. Hut listy 18 no. 9:666-680 8'63.

MRAZ, V.

"Aluminum cables and their reliability."

p. 386 (Elektrotechnik) Vol. 12, no. 12, Dec. 1957  
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,  
April 1958

MRAZ, V., ins.

New connections for aluminum segmental cables. Elektrotechnik 17  
no.4:109-110 Ap '62.

*MRAZ, Václav*  
MRAZ, Václav, inz.

Modernization of cable production in Hungary. Elektrotechnik  
17 no.5:146 My '62.

MRAZ, V., inz.

Aluminum poles for extra-high-tension lines. Elektrotechnik  
17 no.12:351 D '62.

MRAZ, Vaclav, inz. (Praha)

Economic evaluation of aluminum use in electrical engineering.  
Elektrotechnik 18 no.3:62-64 Mr '63.

KUBICKA, Rudolf, inz. CSc.; MRAZ, Vladislav, dr. inz.

Motor fuel manufacture from sulfurous crude oils. Ropa a uhlí  
6 no. 2: 35-40 F '64.

1. Vyzkumný ústav pro chemické využití uhlí, Záluží v Krušných  
Horách.

MRAZ, Vlastimil

Mechanization and automatization in industrial production. n. 324. (vnu  
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SC: Monthly List of East European Accessions (EEL) LC, Vol. 6, no. 12, Dec 1957. Encl.

CEROVSKY, Zdenek, inz., kandidat technickych ved; MRAZ, Vladimir, inz.;  
VIZEK, Eduard, inz.

A new series of control dynamos and motors for hoisting machines  
made by the national enterprise "Ceskomoravska-Kolben-Danek  
Praha". El tech obzor 51 no.10:519-526 0 '62.

1. Ceskomoravsko-Kolben-Danek Praha, n.p.

MRAZEK, A; VIANET, Z.; ZAMLLICKA, J.

Use of ultraviolet for disinterfection of rooms. . . 6.  
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5-6; 1952.

SOURCE: First 'European Acquisitions List' (EIAL), Library of Congress  
Vol. 5, no. 12, December 1956.

MRAZEK, A

"A new knowledge of the geology of sediments in the basins of Southern Bohemia."

p. 365 (Central Geologic Institute, Czechoslovak Academy of Sciences.) Vol. 32, no. 5, 1957

SO: Monthly Index of East European Accessions (EEAI) LC, Vol. 7, no. 5, May 1958

MRAZEK, A.; VLASEK, Z.

"Determination of germanium in the sediments of the basins of Southern Bohemia"

p. 74 (Central Geologic Institute, Czechoslovak Academy of Sciences) Vol. 33, no. 1, 1958

SO: Monthly Index of East European Accessions (EEAI) LC, Vol. 7, no. 5, May 1958

MRAZEK, C.

"Application of stereoscopic macrophotography and microphotography in the documentation  
and research on electroceramics; a preliminary report. p. 260."

SILIKATY. Praha, Czechoslovakia. Vol. 2, No. 3, 1958.

Monthly list of East European Accessions (EEAI), LC, Vol. 3, No. 6, Jun 59, Unclassified.

Brincker, E.  
British Abi. A.I.I.  
Nov. 1963

## Heterocyclic

*1-(4-Cyanomethyl)quinoline, (4'-aminoethyl)quinoline, and 4'-  
aminovinyl-1,2,3,4-tetrahydroquinoline.* The constitution of calycanthine, R. Kilmann and E. Brincker,  
(Mh. Chem., 1952, 83, 915-920). Calycanthine is shown to contain 2-acetyl-4-oxoquinoline (OAc), in 1-methylpyrrolizidine, 2,3,4-tetrahydroquinoline. Ag(OAc)<sub>2</sub> oxidizes 1-(4-methoxyimino)-1',2',3',4-tetrahydroquinoline (four methods of synthesis described) to further that the corresponding quinolinic derivative. This suggests that the pyrrolquinoline system already exists in calycanthine and is not formed by cyclisation of 4-MeNH-CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub> side chain which would be necessary on the basis of Hardeg's calycanthine formula (A, 1939, 11, 291). 4- and 2'-Formamidoethyl-1,2,3,4-tetrahydroquinoline are reduced by LiAlH<sub>4</sub> to the N-Me衍生物. Using a crude prep. of LiAlH<sub>4</sub>, a by-product, m.p. 149°, is obtained from the former to which is tentatively attributed the structure 1-methyl-1',2',3',4-tetrahydro-4-oxalidopyrrolizidine (4'-quinoline).

4-(2-Nitro-1-chlorovinyl)-1,2,3,4-tetrahydroquinoline is reduced by SnCl<sub>4</sub> to 4-(2-chloro-1-hydroxyethyl)-N-(nitrovinyl) deriv., C<sub>11</sub>H<sub>11</sub>O<sub>2</sub>N<sub>2</sub>, m.p. 101°, which is converted by POCl<sub>3</sub> to an unstable chloro-deriv., hydroxylated using a Pd-C catalyst in EtOH to 4-(2-aminoethyl)-quinoline (I), b.p. 100-110°(airbath temp.)/0.1 mm. [Merck, C<sub>11</sub>H<sub>12</sub>N<sub>2</sub>O<sub>2</sub>, m.p. 220° (decomp.), with prior change at 162-164°]. Et<sub>3</sub>N and diacetone acetate (II) (methylchloro, C<sub>11</sub>H<sub>13</sub>O<sub>3</sub>, m.p. 144°) is reduced by LiAlH<sub>4</sub> to 4-(2-hydroxyethyl)quinoline (III), b.p. 150-170°(airbath temp.)/0.1 mm. [Merck, C<sub>11</sub>H<sub>12</sub>ON, C<sub>11</sub>H<sub>12</sub>O<sub>2</sub>N<sub>2</sub>, m.p. 156-157°], which on treatment first with HBr, then with NH<sub>3</sub>, gives 1-H-CO<sub>2</sub>H and I (100/72 mix) give an N-formyl deriv., b.p. 170-190° (airbath temp.)/0.1 mm, which is reduced by LiAlH<sub>4</sub> to 4-(2-methoxyiminoethyl)quinoline (IV), b.p. 110°(airbath temp.)/0.1 mm. [Merck, C<sub>11</sub>H<sub>12</sub>N<sub>2</sub>O<sub>3</sub>, m.p. 183°] also prepared from III via the bromide and Na in EtOH to 4-cyanoethyl. Is reduced by Na in EtOH to 4-(2-aminoethyl)-1',2',3',4-tetrahydro-1,2,3,4-tetrahydroquinoline (V) (0.1 mm). The N-formyl deriv. is reduced by LiAlH<sub>4</sub> in tetrahydrofuran to 4-(2-methoxyiminoethyl)-1',2',3',4-tetrahydroquinoline (VI), an oil. Picrate not preparable. When a crude form of LiAlH<sub>4</sub> no longer available ("LiAlH<sub>4</sub> practical" (VII) of Fluka Co., St. Gallen, Switzerland) is used, a by-product is obtained, C<sub>11</sub>H<sub>12</sub>N<sub>2</sub>, m.p. 148°, sublimes at 90-100° (airbath temp.)/0.1 mm. Ag(OAc)<sub>2</sub> in 1% AcOH converts V into IV. 2,2'-Formamidoethyl-1,2,3,4-tetrahydroquinoline, C<sub>11</sub>H<sub>12</sub>N<sub>2</sub>, b.p. 110-120° (airbath temp.)/0.1 mm.

3

Mrázeck, E.

deoxylic

On the presumed 3-(2-quinolyl)ethylamine-[3'-sinuethoxyquinoline] of E. Hupe and A. Schramme, L. Uller and E. Mrázeck (1963, *J. Chem.*, 1962, 83, 636-637) a different product was prepared by an unambiguously route differs from the product with m.p. 174° of Hupe and Schramme (A., 1958, 1140) prepared by catalytic reduction of 2,2-pyridineethyliquinoline in AcOH. Repetition of this latter work gives their product (m.p. 182°), which is weakly basic and is formulated as either 1,2,3,4, or 1,2,4,5-tetrahydroquinolino[3,2,1-g,2'-4',5']quinoline. The latter is, however, supported by the fact that, unlike related 1,2,3,4-tetrahydroquinoline deriv., it gives a crystall picrate.

2,2-Oxidinoethyliquinoline is reduced catalytically in AcOH (Pd/C catalyst) to give a product,  $C_9H_{11}N$ , m.p. 182° [picrate,  $C_{16}H_{18}NO_4$ , m.p. 108°]. 2-Ethoxymethylacetate (I) is reduced by LiAlH<sub>4</sub> to 2,2-hydroxyethyl- $C_9H_{11}N$ , m.p. 104°, which, with HBr, gives an *o*-bromo hydrochloride which reacts with NH<sub>3</sub> to yield 2,2-aminoethyl-quinoline (II), m.p. 102-110° (air bath temp.)/0.1 mm. [picrate,  $C_{11}H_{14}NO_2$ , m.p. 230° (decomp.) with prior change at 200-208°]. *N*-formyl deriv.,  $C_9H_{11}ON$ , (III), m.p. 86° b.p. 130-170° (air bath temp./0.1 mm.). LiAlH<sub>4</sub> reduction of III gives 2,2-methylaminoethyl-quinoline (IV), b.p. 100-110° (air bath temp./0.1 mm.) [picrate,  $C_{10}H_{13}NO_2$ , m.p. 187-188° (decomp.)]. Ag-NH<sub>3</sub> and I give quinol-2-yl-viacetamide,  $C_{11}H_{11}ON$ , m.p. 113°; similarly MoNH<sub>3</sub> gives quinol-2-yl-*N*-methylacetamide,  $C_{11}H_{11}ON$ , m.p. 128-127°. Reduction of these two amides by LiAlH<sub>4</sub> gives, respectively, II and IV in poor yield. C. H. VASRY.

MRAZEK, J.

Notes on B. Korda and I. Novak's Prirucka statistiky pro pracovníky v uhlím průmyslu (Statistical Handbook for Workers in the Coal Industry).  
p. 39.  
(Uhli, Vol. 7, no. 1, Jan. 1957, Praha, Czechoslovakia.)

SO: Monthly List of East European Accessions (EAL) LC. Vol. 6, no. 12, Dec. 1957.  
Uncl.

DUBANSKY, B.; MRAZEK, J.; HEMLOVA, J.

Severe chorea gravidarum cured by corticotropin, reserpine and chlorpromazine. Cesk.gyn.25[39] no.8:631-632 0'60.

1. Neurol. odd. OUNZ - Prostejov, prednosta MUDr. B. Dubansky.  
(CHOREA in pregn)  
(PREGNANCY compl)  
(CORTICOTROPIN ther)  
(RESERPINE ther)

MRAZEK, J. ; NOVOTNY, K.

The TESLA TVP 300 highvacuum resistance furnace and its applications.  
p. 703

SLABOPROUDY OBZOR. (Ministerstvo presneho strojirenstve, Ministerstvo  
spoju a Vedecka Technicka spolecnost pro electrotechniku pri CSAV)  
Praha, Czechoslovakia, Vol. 20, no. 11, Nov. 1959

Monthly List of East European Accessions (EEAI) LC, Vol. 9, no. 1,  
Jan, 1960

Uncl.

MRAZEK, J.

"Circular diagram of the complex dielectric constant."

p. 521 (Elektrotechnicky Obzor) Vol. 46, no. 10, Oct. 1957  
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,  
April 1958

MRAZEK, J.: NOVOTNY, K.

Tesla TVN 100 vacuum-type evaporator for electron microscopy. p. 577

SLABOPROUDY OBZOR (Ministerstvo všeobecného strojírenství, Ministerstvo správy  
a Československá vedecko-technická společnost, sekce elektrotechnika) Praha,  
Czechoslovakia, Vol. 20, no. 9, Sept. 1959

Monthly List of East European Accessions (EEAI), LC. Vol. 9, no. 2,  
Feb. 1960

Uncl.

NOSEK, J., dr.; MRAZEK, J.

~~Centrifugal separators in the slurry system of chemical~~  
~~cleaning plants. Vodni hosp 14 no. 5:179-182 '64.~~

1. Centroprojekt, Gottwaldov.

MRAZIK, Jan, inz.

Development of labor productivity in coal mines of the main  
European countries. Uhli 6 ne.11;395 N '64.

MRAZEK, Jan, inz.

Organization, planning, and management of the technical ma-  
terial supply. Uhli 6 no.3:104-105 Mr'64.

MRAZEK, J.

Radio measurements. p. 117

Vol. 65, no. 12, 1955  
RADA MATEMATICKO-PRIRODOVODECKA  
Praha, Czechoslovakia

Sov. Eastern European Accession Vol. 5, No. 4, 1956

MRAZEK, Irzhi, master radiolyubitel'skogo sparta.

High-speed radio receiving with manual transcription. Radio no. 8:14-15  
Ag '56. (Radio operators) (MIRA 9:10)

MRAZEK, J.

Occurrence of the sporadic. E sphere over central Europe and adjacent areas.

P. 727, (Geofysikalni Sbornik) Ceased publications. No. 36/60, 1956 ( Published 1957)  
Praha, Czechoslovakia

SO: Monthly Index of East European Acessions (EEAI) Vol. 6, No. 11 November 1957

H/004/60/000/022/00<sup>4</sup>/005  
A121/A026

AUTHOR: Mrázek, Jiří, Candidate of Technical Sciences  
TITLE: The aspects of cosmonautics until 1975  
PERIODICAL: Tudomány és Technika, no. 22, 1960, 682

TEXT: By 1975, the physical characteristics of interplanetary space will be investigated by means of controlled automatic space vehicles. A cosmic laboratory will circulate around the earth, the crew of which will be relieved in certain intervals. The stars' nuclear processes and the interstellar gases ionized to nearly 100%, i.e., the plasma, will be investigated. This plasma will be used in the propulsion of so-called plasma-rockets and in the creation of an artificial sun above the Arctic or the Antarctic. The moon will have its artificial moon; on the moon surface automatic units will be set up ensuring the landing of manned space vehicles. The first scientific station will be under construction, and will probably be located in a cosmic crater; the building will be sealed hermetically to protect the crew from ultraviolet radiation and from small meteors. Members of the crew will make exploration trips on the moon using carriages similar in design to the present tanks. The problems of flights to the planets Mars and Venus will

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H/004/60/000/022/004/005  
A121/A026

The aspects of .....

be solved and their surfaces studied. Artificial moons equipped with automatic measuring instruments will circulate around Mars and Venus. A cosmodrome, i.e., a large cosmic airport will be built in a desert or in mountains near the ocean; a system of cosmic stations will be established all over the world, designed as bases of the so-called cosmic runways. First the interplanetary traffic between earth and the moon will be realized. There is 1 photograph.

ASSOCIATION: CSTA Ūrhajózási bizottsága (Cosmonautic Committee of the Czechoslovak Academy of Sciences)

Card 2/2

BOUSHKA, Jan [Bouska, Jan]; KOCHI, Alois [Kochi, A.], kand. fiz-mat. nauk, inzh.;  
MRAZEK, Irzhi [Mrazek, Jiri]; SHUBRT, Jaroslav  
[Subrt, Jaroslav]; RUPRECHTOVA, Libuse [Ruprechtova, Libuse], inzh., retsenzent; KRZHVSKY, Ladislav  
[Krivosky, Ladislav], retsenzent; BEGOUNEK, Rudolf  
[Behounek, Rudolf], prof., nauchnyy red.; TRZHIEKOVA,  
Ludmila [Triskova, Ludmila], inzh., nauchnyy red.

[Results of geomagnetic, telluric, and ionospheric observations conducted at the observatories of Pruhonice, Budkov, and Panska Ves in 1959] Rezul'taty geomagnitnykh, telluricheskikh i ionosfernykh izmerenii, provedennykh v obseratoriakh Prugonitse, Budkov i Panska Ves v techenie 1959 goda. Prague, Izd-vo Chekhoslovatskoi Akad. nauk, 1962.  
(MIRA 16:7)  
742 p.

1. Nachal'nik kollektiva Geomagnitnoy observatorii Prugonitse [Pruhonice] u Pragi (for Kochi). 2. Nachal'nik ionosfernogo otdela Geomagnitnoy observatorii Prugonitse [Pruhonice] u Pragi (for Mrazek).  
(Czechoslovakia--Geophysics--Observations)

S/169/63/000/001/001/062  
D218/D307

AUTHOR:

Mrazek, Irzhi

TITLE:

Observations carried out in 1959 at the observatories of the Geophysics Institute of the Czechoslovak AS at Prugonitse and Panska Ves

PERIODICAL:

Referativnyy zhurnal, Geofizika, no. 1, 1963, 6,  
abstract 1A13 (In collection: Rezul'taty geomagnit.  
tellurich. i ionosfern. izmereniy, proved. v observ.  
Prugonitse, Budkov i Panska Ves v 1959, Praga, Chek-  
hosl. AH. 1962, 146-148 (Rus.), 154-156 (Eng.))

TEXT: The following investigations were carried out at Prugonitse in 1959: regular vertical sounding of the ionosphere measurements of the field strength for 10 foreign transmitters, which were used in the control of long-range SW propagation conditions, continuous recording of sudden ionospheric disturbance, observations of atmospherics at 27 kc/sec, and observations of sudden disturbances in the propagation of long waves (SPA) and (SFA). The Prugonitse

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S/169/63/000/001/001/062  
D218/D307

Observations carried out in 1959 ...

observatory participated in the ursigram service and maintained operational contact with the regional centers at Moscow and Paris. The Panska Ves Observatory was engaged in studying the coefficients of reflection and conversion for long waves (using the method employed in East Germany), and in the recording of atmospherics at 8.27 and 40 kc/sec. At Prugonitse, the exosphere was studied by recording whistlers, using the same program as that employed by the Kyulyuborn (East Germany) and Taunus (West Germany) observatories.

[Abstracter's note: Complete translation]

Card 2/2

41262

Z/023/62/000/004/001/001  
D005/D102

7.7869

AUTHOR:

Mrazek, Jirí

TITLE: On the problem of propagation of very long electromagnetic waves in the magnetosphere

PERIODICAL: Studia geophysica et geodaetica, no. 4, 1962, 385-390

TEXT: A formula for calculating the refraction index of acoustic-frequency electromagnetic waves in the magnetosphere is proposed and evaluated, neglecting the influence of the ionosphere. It is concluded that, for the propagation of acoustic-frequency waves, the magnetosphere can be regarded as a dispersing, anisotropic medium which is defined by the function  $NH^{-1}$ , where  $N$  is the electron density and  $H$  is the intensity of the geomagnetic field. For each relative minimum of this function there exists, at a definite distance from the earth center, an extreme radius vector which may cause these waves to return to the earth. This also may present an explanation for the existence of whistler pairs and groups, if we suppose that the function  $NH^{-1}$  displays several relative minima on the rising leg. If this supposition holds true, then it should be possible to determine  $\lambda$ .

Card 1/2

Z/023/62/000/004/001/001  
D005/D102

On the problem of propagation of very ...

mine the individual altitudes of the extreme radius vectors by carrying out synchronous observations of whistlers from several stations located on the same meridian. It is further shown that the paths of wave propagation are nonsymmetrical in relation to the equator plane. In conclusion, some methods of geometrical optics are reviewed which lend themselves to the calculation of wave-propagation paths in the simplest cases. For more complicated cases, these methods can also be applied, but will require high-speed computing equipment.

ASSOCIATION: Geophysical Institute, Czechoslovak Academy of Sciences,  
Prague

SUBMITTED: January 2, 1962

Card 2/2

MRAZEK, Jiri, CSc.

On the conflict of the Kantor experiment with the theory of  
relativity. Slaboproudý obzor 25 no.3:166-167 Mr. E.

1. Institute of Geophysics, Czechoslovak Academy of Sciences,  
Prague.

L-8358-65 EEO-2/EWT(j)/EWT(1)/EEC(k)-2/BWG(v)/BEC-4/EEC(b)-2/EED-2/EWA(h)  
Pn-4/Pe-5/Pg-4/Pt-10/peb/Pl-4 SSD(b)/ASD(a)-5/SSD(c)/RAEM(a)/ESD(t) GW/WS  
ACCESSION NR: AP4046996 Z/0023/64/008/004/0405/0408

AUTHOR: Mrazek, J.

TITLE: Evaluation of some exospheric models on the basis of propagation of D  
whistler-type noise

SOURCE: Studia geophysica et geodactica, v. 8, no. 4, 1964, 405-408

TOPIC TAGS: exosphere, exosphere model, exosphere model selection, exosphere model selection method, whistler, whistler propagation, whistler scattering, whistler trajectory, Runge Kutta method

ABSTRACT: This paper describes a relatively simple method for the evaluation of exospheric models by analysis of the propagation, particularly the scattering, of whistlers. It is assumed that the trajectory of the whistler is described at each point by the corresponding value of the refractive index  $n$  as given in  $n^2 = 1 - f_c^2/[f(f-f_H)]$ , where  $f$  is the transmission frequency,  $f_c$  the plasma frequency, and  $f_H$  the gyromagnetic frequency. The effect of the angle which encloses the propagation direction of the whistler and the direction of the geomagnetic line of force are disregarded. The effect of the ionosphere is also tem-

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L 18358-65

ACCESSION NR: AP4046996

porarily disregarded. The resulting criterion for the suitability or nonsuitability of an exospheric model is in the final analysis based on the computed value of the whistler. The trajectories of the whistlers for the exospheric models are calculated by the Runge-Kutte method, and the tabulated data make it possible to select the most suitable model if the scattering values of short whistlers obtained by observation are known. The interpolation of the models can be carried out with the aid of a given formula and a table of values with the result that the corresponding scattering values of the whistlers will correspond with the scattering values obtained through observation. Orig. art. has: 3 formulas and 2 tables.

ASSOCIATION: Geophysikalisches Institut der Tschechosl. Akad. d. Wiss., Prague  
(Geophysics Institute of the Czechoslovak Academy of Sciences)

SUBMITTED: 21Feb64

ENCL: 00

SUB CODE: ES

NO REF SOV: 000

OTHER: 003

Card 2/2

L 31719-66 FCC GW  
ACC NR: AP6021188

SOURCE CODE: CZ/0023/66/010/001/0079/0086

AUTHOR: Mrazeck, Jiri

ORG: Geophysical Institute, CSAV, Prague

TITLE: Influence of suddenly arising geomagnetic storms in 1960-1962 on the electron concentration in the F2 layer over Europe

SOURCE: Studia geophysica et geodaetica, v. 10, no. 1, 1966, 79-86

TOPIC TAGS: magnetic storm, ionospheric electron density, F layer

ABSTRACT: The article reports the results of an analysis of data obtained at nine ionospheric stations in Europe in 1960-1962 on the influence of sudden geomagnetic storms on the electron concentration in the F2 layer. Orig. art. has: 2 figures and 4 tables. [JPRS]

SUB CODE: 04 / SUBM DATE: 15Feb65 / OTH REF: 001 / SOV REF: 003

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B

Card 1/1 (f)

MRAZEK, JAF

406

L 41519-65 ARG/EZO-2/ENG(j)/ZET(d)/FBD/FSS-2/Z:G(r)/ZET(1)/FBO/EMP(o)/Z:MA(1)/  
 EWT(m)/FS(v)-3/EPF(c)/EZC(k)-2/Z:G(s)-2/ZMP(i)/Z:PF(f)/E:G(v)/Z:IP(c)/Z:IP(v)/Z:MA(1)/  
 EPR/EMP(j)/T-2/Z:G(a)-2/Z:IP(h)/EPB(bb)-2/EEC(c)-2/ZED-2/Z:G(c)/FCS(k)/EMP(b)/  
 AMW/15110 P1-4/Pw-4/Pz-4/Pn-4/ BCCX EXPLOITATION P1-4/Fh-4/Pac-2/Pa-4/Pr-4/163  
 Po-4/Pc-5/Pq-4/Pac-4/Fr-4/ IJP(c) AST/TT/MN/DD/RM/GW/BC/MH 141  
 Barvir, Mironlav, (Engineer); Benes, Konrad, (Professor, Doctor); Boucka, Jiri,  
(Doctor); Buhal, Ivo, (Graduate in Philosophy); Cejlech, Zdenek, (Candidate of Physical and Mathematical Sciences); Cech, Milan, (Doctor); Lolezal, Vladimir, (Doctor);  
(Doctor); Dvorak, Antonin, (Candidate of Medical Sciences); Dvorak, Josef, (Doctor);  
Guth, Vladimir, (Candidate of Medical Sciences, Docent, Doctor); Hornak, Zdenek, (Doctor);  
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